

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-44 (Canceled).

Claim 45 (Currently Amended) A process for production of a grinding wheel having a central ring ~~wheels provided with an abrasive product~~, the process comprising ~~the steps of:~~

providing the central ring;

providing disposing a blank around the ring; ~~constituted from abrasive grains or from abrasive grains and an upper layer of constituent without abrasive grains, and~~

disposing at least another a layer of a constituent superimposed on said blank; and
superposing the blank and the at least another constituent to form at least two layers of constituent

compressing the blank and the layer of constituent, wherein said layer of constituent comprises a protective sheet, a reinforcing sheet, or a combination thereof and said blank is formed by a method comprising:

pouring abrasive grains and a binder directly into a mold; and

compressing the abrasive grains and the binder, wherein said blank is configured to be manipulated, seized, or moved by hand or by means of a machine.

Claim 46 (Currently Amended) A The process according to claim 45, wherein the blank comprises at least one layer of constituent without abrasive grains, especially a reinforcing sheet.

Claim 47 (Currently Amended) A The process according to claim 45, wherein pouring the abrasive grains comprises pouring the abrasive grains coated with the binder and

compressing the abrasive grains comprises compressing the abrasive grains coated with the binder. comprising the steps of:

~~prior to the providing step forming the blank from an abrasive product comprising abrasive grains provided with a coating constituted by a binder by:~~
~~pouring the abrasive product into a mold;~~
~~adjusting the level of the abrasive product in the mold to a desired value; and~~
~~compressing the abrasive product.~~

Claim 48 (Currently Amended) A The process according to claim 45 [[46]], wherein said compressing is accomplished without the application of heat. comprising the steps of:

~~prior to the providing step forming the blank from an abrasive product comprising abrasive grains provided with a coating constituted by a binder by:~~
~~pouring the abrasive product into a mold;~~
~~adjusting the level of abrasive product in the mold a desired value;~~
~~depositing at least one other layer of constituent without abrasive grains, especially a reinforcing sheet, on the abrasive product to form a stack; and~~
~~compressing the resulting stack.~~

Claim 49 (Currently Amended) A The process according to claim 45, further comprising ~~the steps of:~~

~~successively laying layers of constituent including the at least one blank one on top of the other to form a stack;~~
~~heating the stack; and~~
~~thereafter compressing the stack.~~

Claim 50 (Currently Amended) A ~~The~~ process according to claim 45, further comprising ~~the steps of~~:

arranging ~~the~~ layers in the form of stacks along an assembly line equipped with layer-laying stations;

providing stocks of stacks at at least certain stations, from which the stocked stacks are taken one by one to superpose thereon a new layer of constituent;

and evacuating the stack provided with its new layer from one station toward the following station.

Claim 51 (Currently Amended) An installation for making a grinding wheel having a central ring ~~wheels provided with an abrasive product~~, comprising:

at least one machine for making blanks from abrasive grains[[],];

an assembly line equipped with stations disposed in succession for providing the central ring and superposing at least one blank obtained from the blank-making machine and at least another constituent layer to constitute a stack of superposed layers[[],]~~followed by a heating station where the stack of superposed layers is heated;~~ and

~~with~~ at least one pressing machine for compressing the stack, the at least one pressing machine having a form of a pressing station positioned at one of an end of the assembly line or downstream from the assembly line, wherein said blanks are formed by pouring abrasive grains and a binder directly into a mold and compressing the abrasive grains and the binder, and said blanks are configured to be manipulated, seized, or moved by hand or by means of a machine.

Claim 52 (Currently Amended) ~~An~~ The installation according to claim 51, wherein the blank-making machine is provided with a production carousel equipped with molds and

specialized working stations comprising a station for pouring ~~an~~ the abrasive grains and binder, a leveling station, a pressing station, a discharge station, a cleaning station, and a storage table for storage of produced blanks.

Claim 53 (Currently Amended) ~~An~~ The installation according to claim 51, wherein the assembly line comprises an endless conveyor that carries fixed plates configured to receive removable plates, each removable plate configured to receive one of the stacks of superposed layers.

Claim 54 (Currently Amended) ~~An~~ The installation according to claim 51, wherein the assembly line is provided with a station for laying rings followed by several stations for laying layers of constituent and the heating station.

Claim 55 (Currently Amended) ~~An~~ The installation according to claim 51, wherein the assembly line is provided with a at least one station comprising a temporary stocking device.

Claim 56 (Currently Amended) An installation for production of a grinding wheel having a central ring ~~wheels~~, comprising:

a station for filling a mold with abrasive grains and a binder ~~or with abrasive grains and an upper layer of constituent without abrasive grains~~ from which at least one blank is formed;

a machine for pressing the abrasive grains and the binder ~~or the abrasive grains and the upper layer of constituent without abrasive grains~~ contained in the mold in order to form the blank;

an assembly station designed to form a stack of superposed layers from at least one blank and at least one other layer of constituent and to provide the central ring to the stack of superposed layers;

a pressing machine for compressing the stack and forming the grinding wheel.

Claim 57 (Currently Amended) ~~An~~ The installation according to claim 56, wherein the stations and machines are disposed around a production carousel on which at least one mold is fixed.

Claim 58 (Currently Amended) ~~An~~ The installation according to claim 57, wherein the production carousel comprises sectors corresponding to working stations for consecutive operations, and each sector comprises at least a first position for a mold and at least a second position on which one or more layers of constituent of the grinding wheel are configured to be disposed.

Claim 59 (Currently Amended) ~~An~~ The installation according to claim 58, wherein the following consecutive operations are performed:

deposition and leveling of abrasive grains coated with a binder in a mold situated at a first position of a sector, especially by means of a tool, and deposition of at least one layer of component, especially a protective layer, at a second position of the sector;

deposition of at least one layer of component, especially a reinforcing sheet, on the abrasive grains in the mold at the first position, and deposition of at least one layer of component, especially a protective sheet and/or a reinforcing sheet, at the second position;

pressing by the pressing machine designed to form at least one blank from the layers of constituent contained in the at least one mold;

forming a stack, which takes at least one blank from the first position to lay it at the second position and thus constituting at least one stack formed by the layers of constituent disposed beforehand in a location and by the at least one blank;

pressing the stack situated at the location in order to consolidate a grinding wheel by the pressing machine; and

evacuation of the grinding wheel.

Claim 60 (Currently Amended) ~~Am~~ The installation according to claim 51, wherein the pressing machine comprises a carousel equipped with jack-operated presses provided with a movable tool assembly, the jack-operated presses comprising a mold provided with a bottom and a side wall, the side wall mounted slidingly around the bottom, the jack-operated presses further comprising a mold support fixed to a piston of the jack, interlocked by a first spring device to the bottom, and interlocked by a second spring device to the side wall, whereby during extension of the jack, the bottom under the influence of the first spring device and mold support subjects the stack to a pressing force while the side wall under the influence of the second spring device and the mold support surrounds the stack and, during retraction of the jack, an upward movement of the side wall is initiated while the bottom is still against the stack and then the upward movement of the bottom occurs while the side wall continues its upward movement.

Claim 61 (Currently Amended) ~~Am~~ The installation according to claim 51, wherein the pressing machine is provided with presses, each equipped with a support for a removable plate configured to receive a stack of layers of constituents of the grinding wheel, and with a cam surface over which rollers travel, each roller interlocked with a support to raise the

support for evacuation of the grinding wheel and reloading of the removable plate on the assembly line.

Claim 62 (Currently Amended) A The grinding wheel ~~provided with an abrasive product~~[[,]] produced by the process according to claim 45, further comprising at least one reinforcing layer pierced by holes in which part of the abrasive ~~product~~ grains is distributed.

Claim 63 (Currently Amended) A The grinding wheel according to claim 62, wherein said compressing is accomplished without applying heat.

Claim 64 (Currently Amended) A The grinding wheel according to claim 62, further comprising at least one blank sandwiched between two reinforcing layers.

Claim 65 (Currently Amended) A The grinding wheel according to claim 62, wherein a thickness of the grinding wheel is less than or equal to 2 mm[[,]] ~~or even less than or equal to 1 mm.~~

Claim 66 (Currently Amended) A factory or factory section for production of a grinding wheel having a central ring ~~wheels, provided with an abrasive product~~, wherein the factory or the factory section is divided into at least first and second zones, and the first zone is ~~designed~~ configured for production of blanks constituted from abrasive grains and a binder ~~or from abrasive grains and an upper layer of constituent without abrasive grains~~ and the second zone is configured for assembly of at least one blank, the central ring, and at least one other layer of constituent without abrasive grains in order to ~~constitute form~~ by application of pressure.

Claim 67 (New) The grinding wheel according to claim 62, wherein a thickness of the grinding wheel is less than or equal to 1 mm.

Claim 68 (New) The installation of claim 51, wherein said pressing machine compresses the stack without an application of heat.

Claim 69 (New) The installation of claim 56, wherein said pressing machine compresses the stack without applying heat.

Claim 70 (New) The factory of claim 66, wherein said application of pressure is performed without applying heat.

Claim 71 (New) The installation of claim 51, wherein the blanks are formed by pouring the abrasive grains coated with the binder directly into the mold and compressing the abrasive grains coated with the binder.

Claim 72 (New) The installation of claim 56, wherein the station is configured to fill the mold with the abrasive grains coated with the binder and the machine for pressing is configured to press the abrasive grains coated with the binder.

Claim 73 (New) The factory of claim 66, wherein the first zone is configured to produce the blanks from the abrasive grains coated with the binder.